Patterns Practice

```python
row = 5
n=1
for i  in range(1,row+1):
    print(" " *(row-i),end="")
    for j in range(2*i-1):
        print("*",end="")
    n+=1
    print()
```

o/p:-

```
    *
   ***
  *****
 *******
*********
```

```python
row = 5
for i  in range(1,row+1):
    print(" " *(row-i),end="")
```

```python
    for j in range(2*i-1):

        print("*",end="")

    print()
for i  in range(row-1,0,-1):

    print(" " *(row-i),end="")

    for j in range(2*i-1):

        print("*",end="")

    print()
```

o/p:-

```
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```

```python
rows = 5
for i in range(1, rows+1):

    print(" " * (rows - i), end="")
```

```python
    for j in range(1, i+1):

        print("*", end="")

    for j in range(i-1, 0, -1):

        print("*", end="")

    print()

for i in range(rows-1,0,-1):

    print(" " * (rows - i), end="")

    for j in range(1, i+1):

        print("*", end="")

    for j in range(i-1, 0, -1):

        print("*", end="")

    print()
```

o/p:-

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```

```
   a

 ABC

12345

12345

 abc

 A




m=1

n=97

o=65

for a in range(rows,0,-1):

   print(" " * (rows-a),end="")

   for j in range(2*a-1):

      if a==3:

         print(m,end="")

         m+=1

      elif a==2:

         print(chr(n),end="")

         n+=1

      else:

         print(chr(o),end="")

         o+=1

   print()
```

```python
row = 3
n=65
k=97
p=1
for i in range(1,row+1):
    print(" " * (row-i),end="")
    for j in range(2*i-1):
        if i==1:
            print(chr(k),end="")
        if i==2:
            print(chr(n),end="")
            n+=1
        if i == 3:
            print(p,end="")
            p+=1
    print()
o=97
q=65
m=1
for a in range(row,0,-1):
    print(" " * (row-a),end="")
    for b in range(2*a-1):
```

```python
        if a==1:
            print(chr(o),end="")
        if a==2:
            print(chr(q),end="")
            q+=1
        if a == 3:
            print(m,end="")
            m+=1
    print()
```

o/p:-

```
 a
 ABC
12345
12345
 ABC
 a
```

```python
for i in range(1,6):
    for j in range(i,i+1):
        print("*"*j,end="")
    print()
for i in range(5-1,0,-1):
    for j in range(i,i+1):
        print("*"*j,end="")
```

```
    print()
```

o/p:-

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```

```python
for i in range(1,6):
    print (" " * (6 -i),end="")
    for j in range(i,i+1):
        print("*"*j,end="")
    print()
for i in range(6-2,0,-1):
    print (" " * (6 -i),end="")
    for j in range(i,i+1):
        print("*"*j,end="")
    print()
```

O/P:

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```
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```

```python
row = 4

for i in range(1,row+1):

    if i==1 or i==2 or i == 3:

        for j in range(2):

            print("*",end="")

        print(" " *2,end="")

        for j in range(2):

            print("*",end="")

    if i==4:

        print("*" * 6,end="")

    print()
```

o/p:

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```

```
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* *

*****


row = 5

for i in range(1,row+1):

    if i==1 or i==2:

        for j in range(i):

            print("*",end="")

    if i==3 or i==4:

        for j in range(1):

            print("*",end="")

        print(" ",end="")

        for j in range(1):

            print("*",end="")

    if i == 5:

        print("*" * i,end="")

    print()
```

o/p:

*

**

* *

* *

*****

```
row = 5
for i in range(row,0,-1):
    if i==1 or i==2:
        for j in range(i):
            print("*",end="")
    if i==3 or i==4:
        for j in range(1):
            print("*",end="")
        print(" ",end="")
        for j in range(1):
            print("*",end="")
    if i == 5:
        print("*" * i,end="")
    print()
```

o/p:

*****

* *

```
* *

**

*
```

```python
row = 5
n=1
for i in range(1,row+1):
    for j in range(i):
        print(n,end="")
        n+=1
    print()
```

o/p:-

```
1
23
456
78910
1112131415
```

```python
row= 5
n=65
for i in range(1,row+1):
    for j in range(i):
        print(chr(n),end="")
```

```
        n+=1
    print()
```

o/p:-

A

BC

DEF

GHIJ

KLMNO